Fluoroquinolone-resistant *Campylobacter* Infections in the United States: A pilot case-control study in FoodNet Sites

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Fluoroquinolones (e.g., ciprofloxacin) have been used widely for the treatment of many human gastrointestinal infections, including *Campylobacter*. Recently, fluoroquinolone-resistant *Campylobacter* infections in humans have been reported from the United States, Europe and Southeast Asia. We sought to determine the prevalence of, identity risk factors for, and determine clinical outcomes of ciprofloxacin-resistant *Campylobacter* infections in 4 Foodborne Diseases Active Surveillance Network (FoodNet) sites (CA, CT, GA, and OR) in 1997. FoodNet sites forwarded one *Campylobacter* isolate each week to CDC for antimicrobial testing. We conducted a retrospective matched case-control study comparing persons with ciprofloxacin-resistant *Campylobacter* infections (patients) to persons with ciprofloxacin-sensitive infections (controls) reported during 1997. Controls, matched by site and date of specimen collection, were selected for each patient. In 1997, 20 (12%) of 164 *Campylobacter* isolates from all 4 sites were resistant to ciprofloxacin. Sixteen (80%) of 20 patients and 31 controls were interviewed for the case-control study. Only one patient and one control took fluoroquinolones between the onset of their illness and the collection of their stool specimen. Seven (44%) of 16 patients compared with 1 (3%) of 31 controls traveled to a foreign country in the 7 days before illness onset (mOR (infinity), 95 % CI 3 -(infinity), p <0.001). Five (31%) of 16 patients were hospitalized overnight compared to 1 (3%) of 31 controls (matched odds ratio [mOR] 00,95 % confidence interval [CI] 1.5 (infinity), p <0.05). We confirmed the existence of ciprofloxacin-resistant *Campylobacter* in all 4 FoodNet sites. Although foreign travel was identified as a risk factor, the majority of patients acquired their infections in the United States. Further research is needed to identify the sources for domestically acquired fluoroquinolone-resistant *Campylobacter* infections.

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